

# *Who's affected by Brexit? How might different trade arrangements impact and different UK industries, regions and workers?*

Peter Levell, IFS

# UK's participation in global value chains: implications for post-Brexit trade policy

Peter Levell

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# Introduction

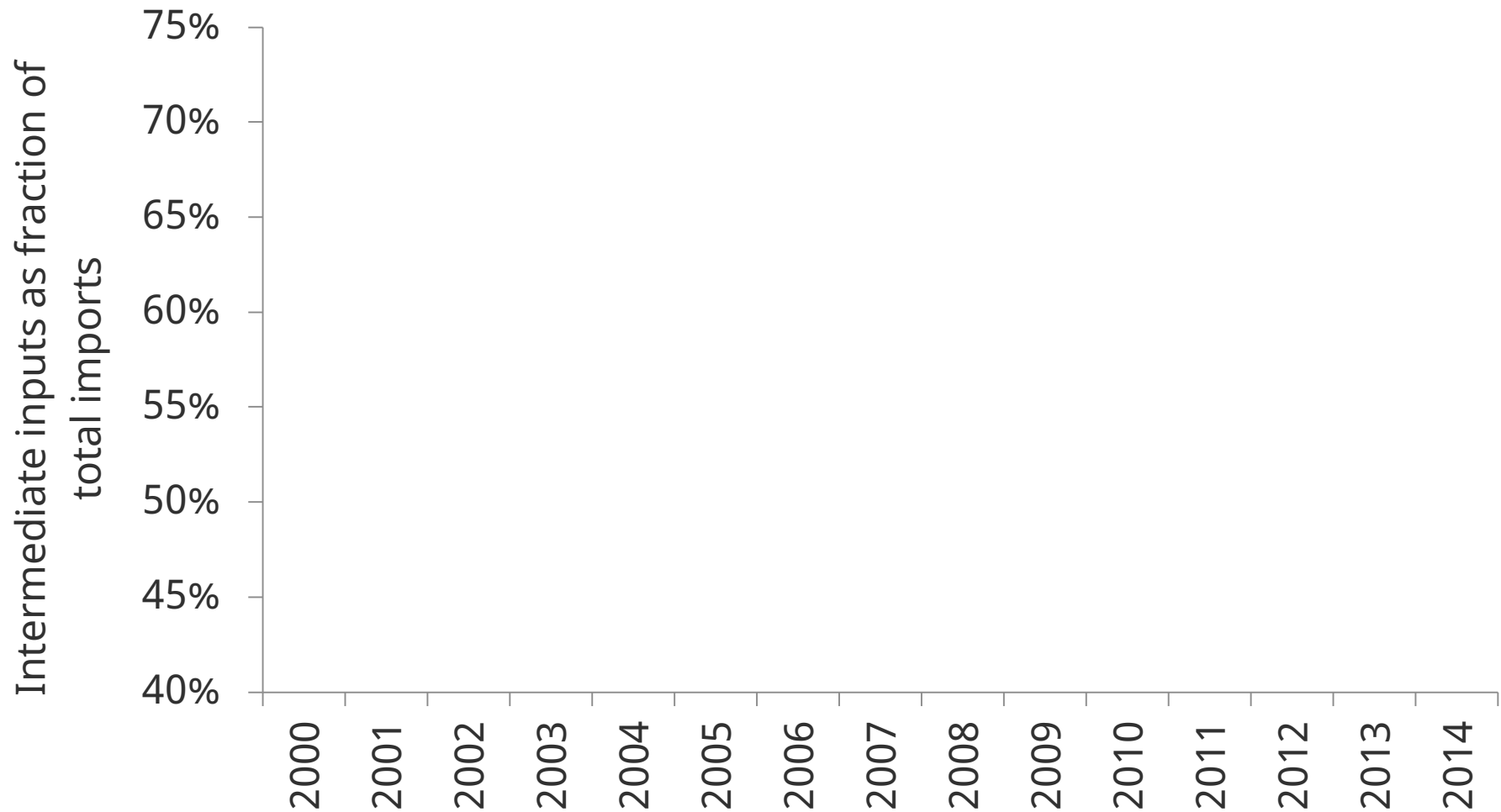
**Much public discussion around trade is in terms of *final* goods and services (British pharmaceuticals, French wine, Japanese cars etc.)**

**However, much trade is in *intermediate* goods and services (car engines, basic chemicals, off-shored office functions etc.)**

- These are goods/services that are inputs to the production of other things
- Inputs cross borders because production is fragmented across different countries – final goods and services are produced by *global value chains*

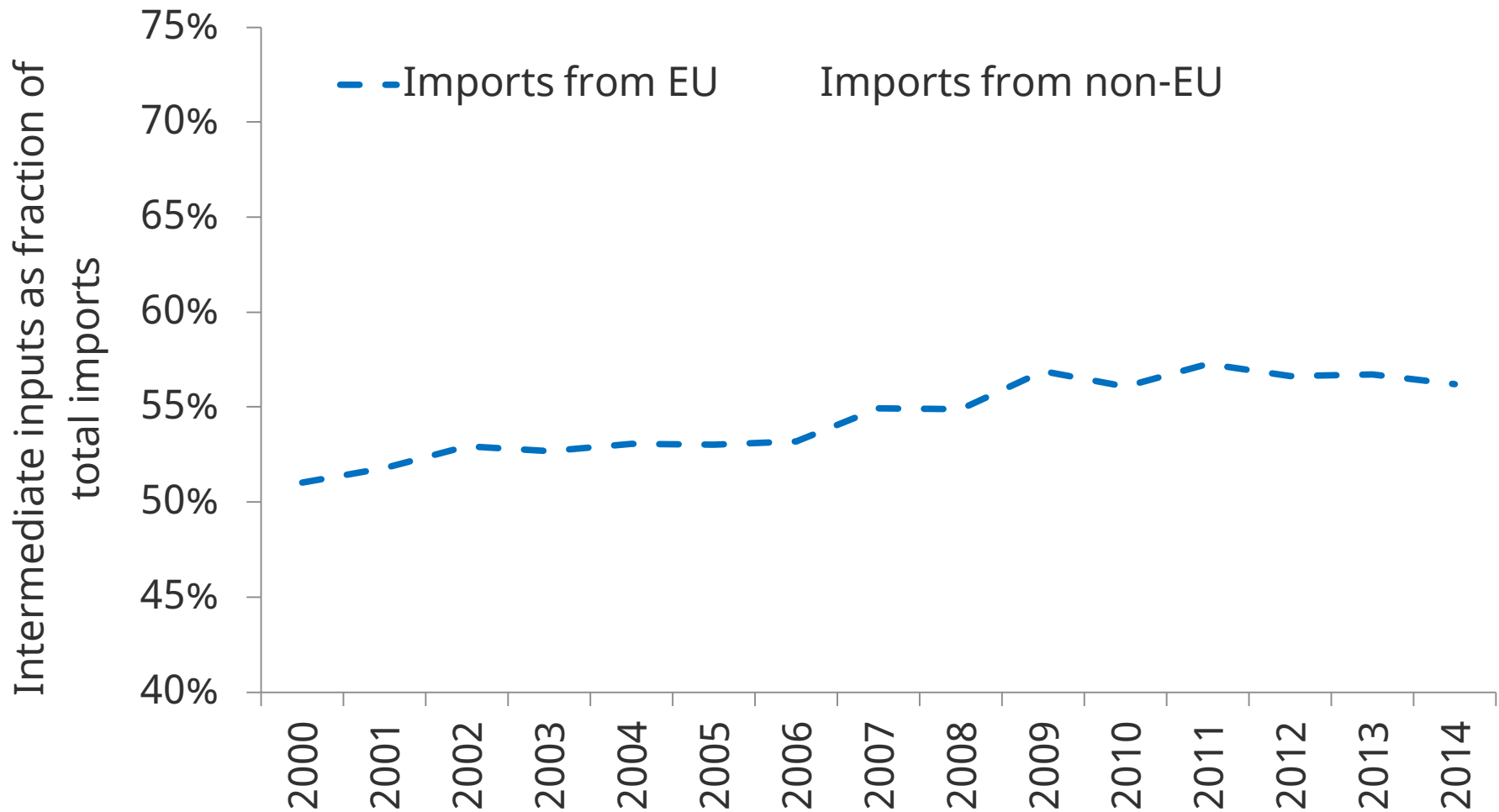
**Indeed, trade in these sorts of products accounts for the *majority* of the UK's trade**

# Most UK imports are intermediate inputs



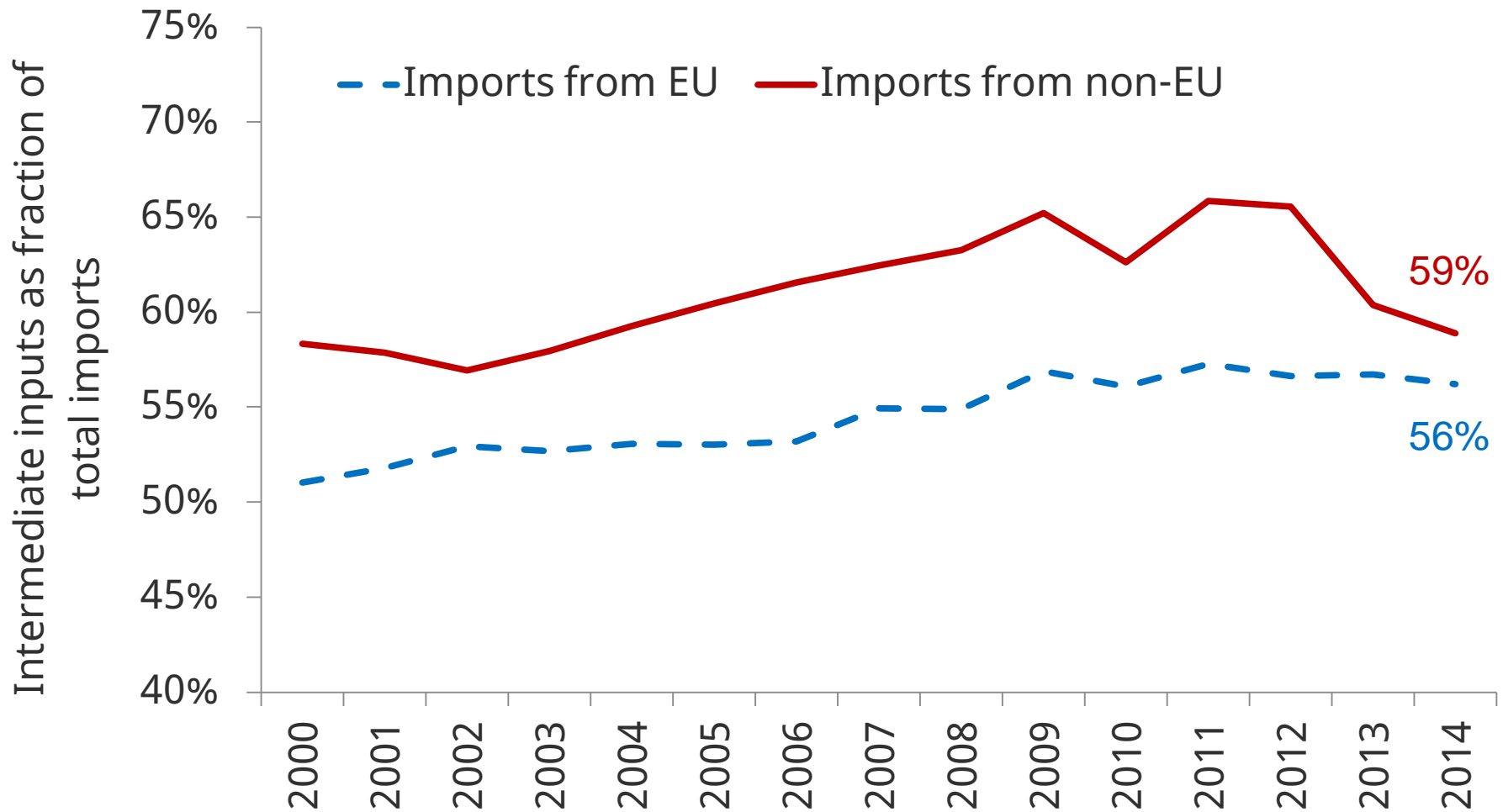
Source: Calculations using the World Input Output Database

# Most UK *imports* are intermediate inputs



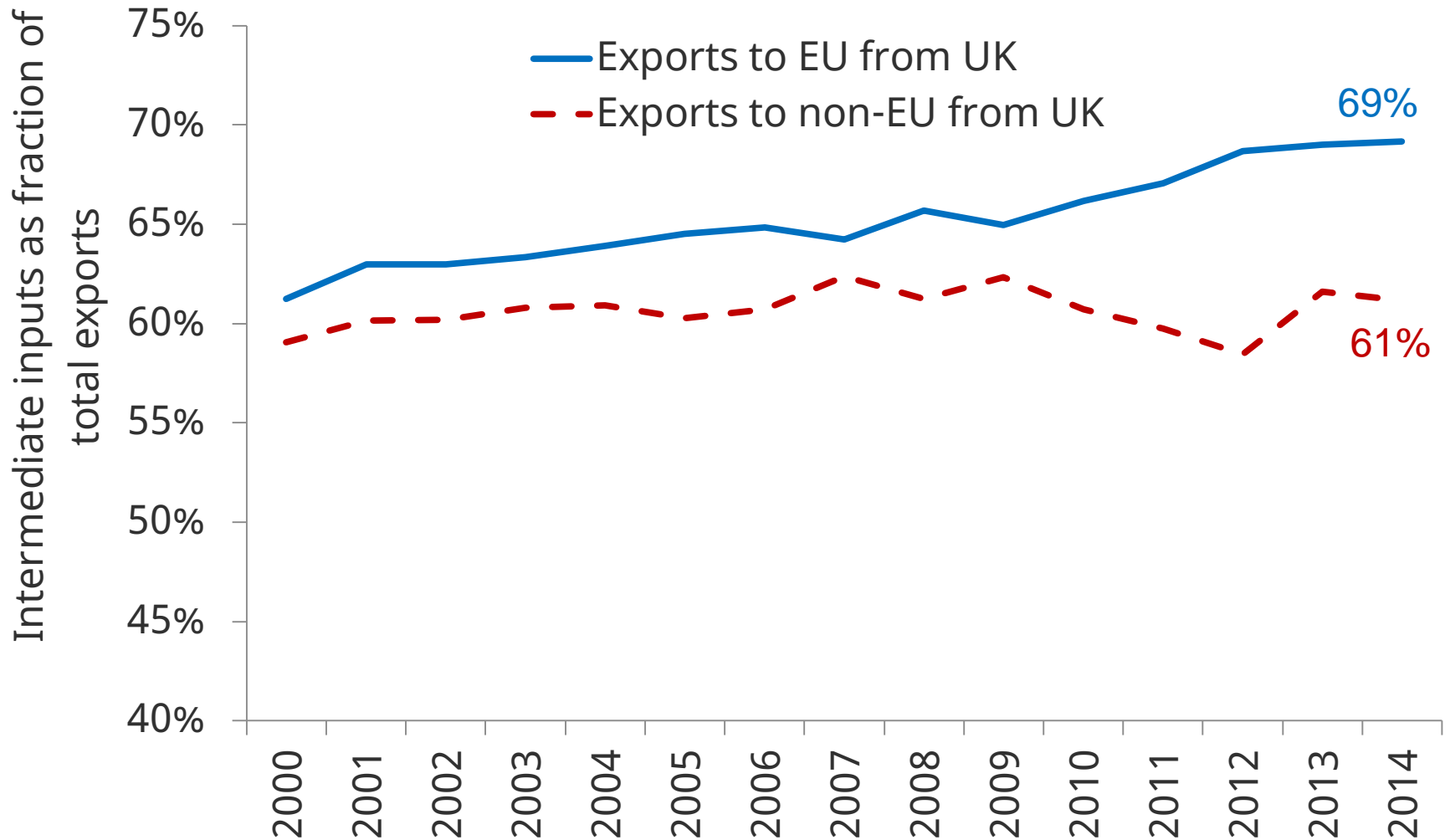
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# Most UK imports are intermediate inputs



Source: Calculations using the World Input Output Database

# Most UK exports are intermediate inputs



Source: Calculations using the World Input Output Database

## **These patterns have consequences for trade policy**

- Shouldn't just focus on reducing barriers to your exports to other countries

## **Success of a country's exporters is also going to depend on**

- Whether high quality intermediate inputs can be purchased at low cost
  - e.g. can imports from abroad be included in “just-in-time” production methods?
- Export success of countries you are supplying intermediates to
  - (this includes their access to your own market)



# Our analysis

## Aim to understand

1. Importance of foreign content in UK exports and for UK industries
  - e.g. German made engines in UK car exports
2. How important is demand for UK-made intermediates from industries in the EU that export elsewhere
  - e.g. UK-made aircraft wings in French aircraft exports to Latin America

## Important to assess key *trade-off* in UK's future trade policy

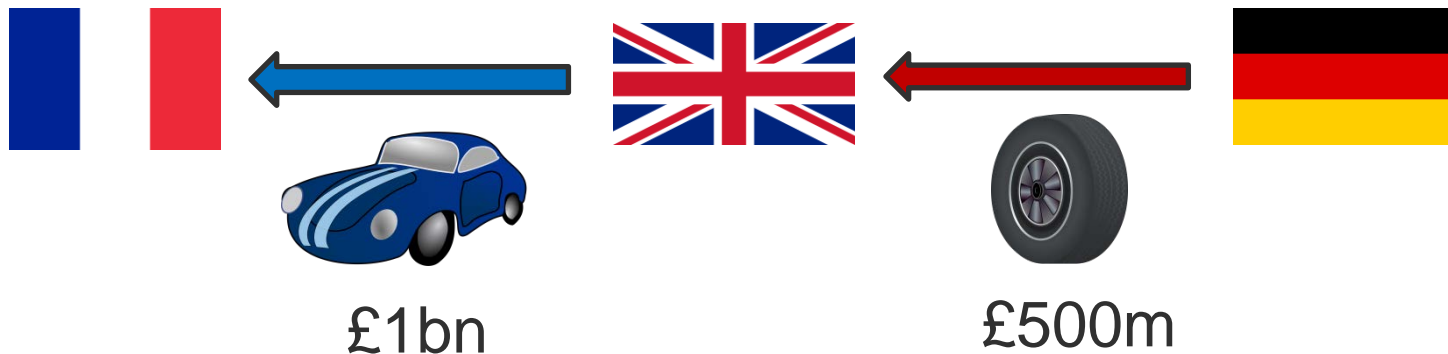
- *Independent trade policy*: higher costs to trade with EU for potential to reduce trade costs with non-EU countries
- More *direct access* to third country markets but less involvement in European value chains exporting to these countries

# Key concept: value added

## We will discuss UK *value added exports* versus *gross exports*

UK's *gross exports* to France are £1bn

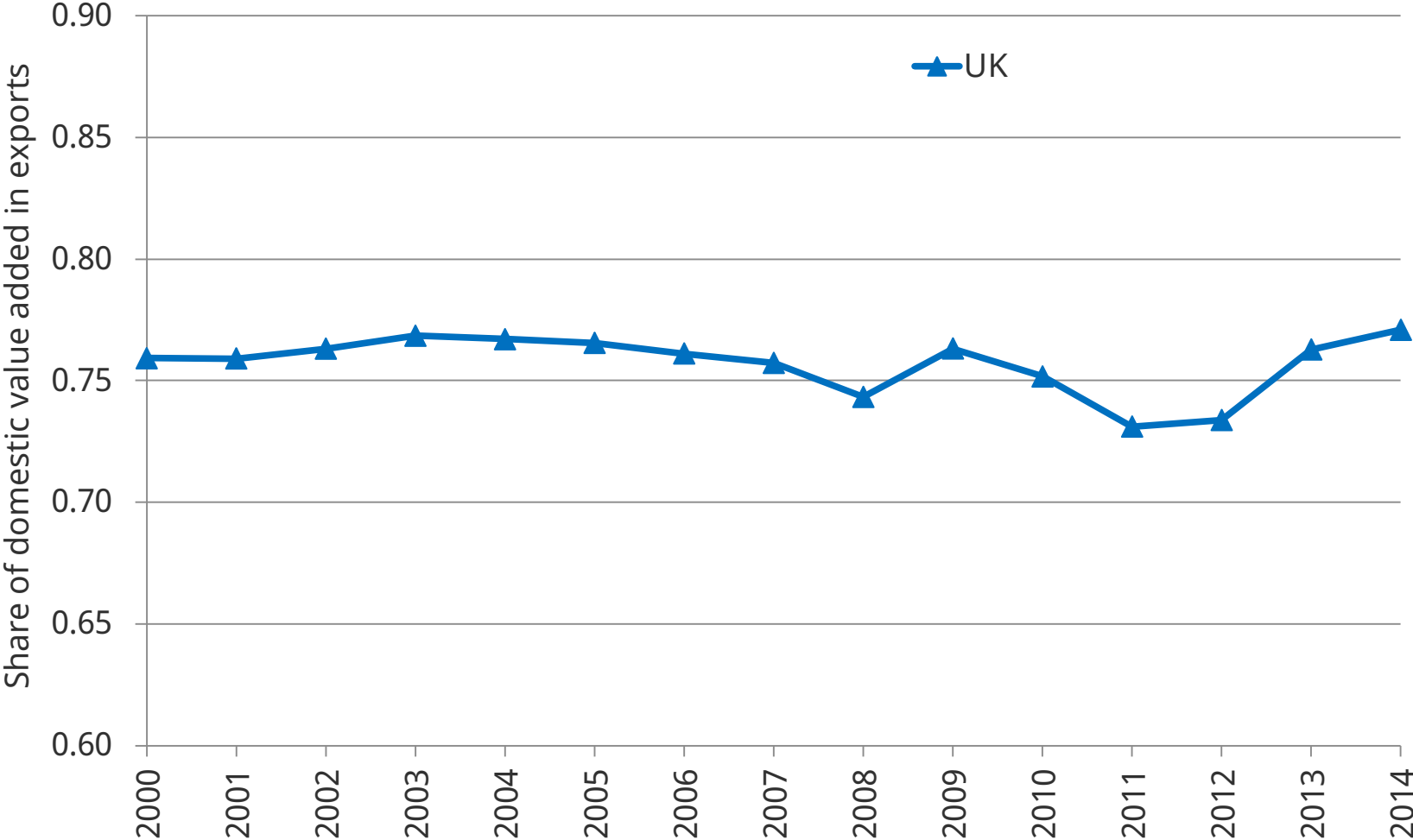
German tyre industry  
*value added exports*  
to France are £500m



UK's *value added exports* to  
France are  $£1bn - £500m = £500m$   
Value added share = 0.5

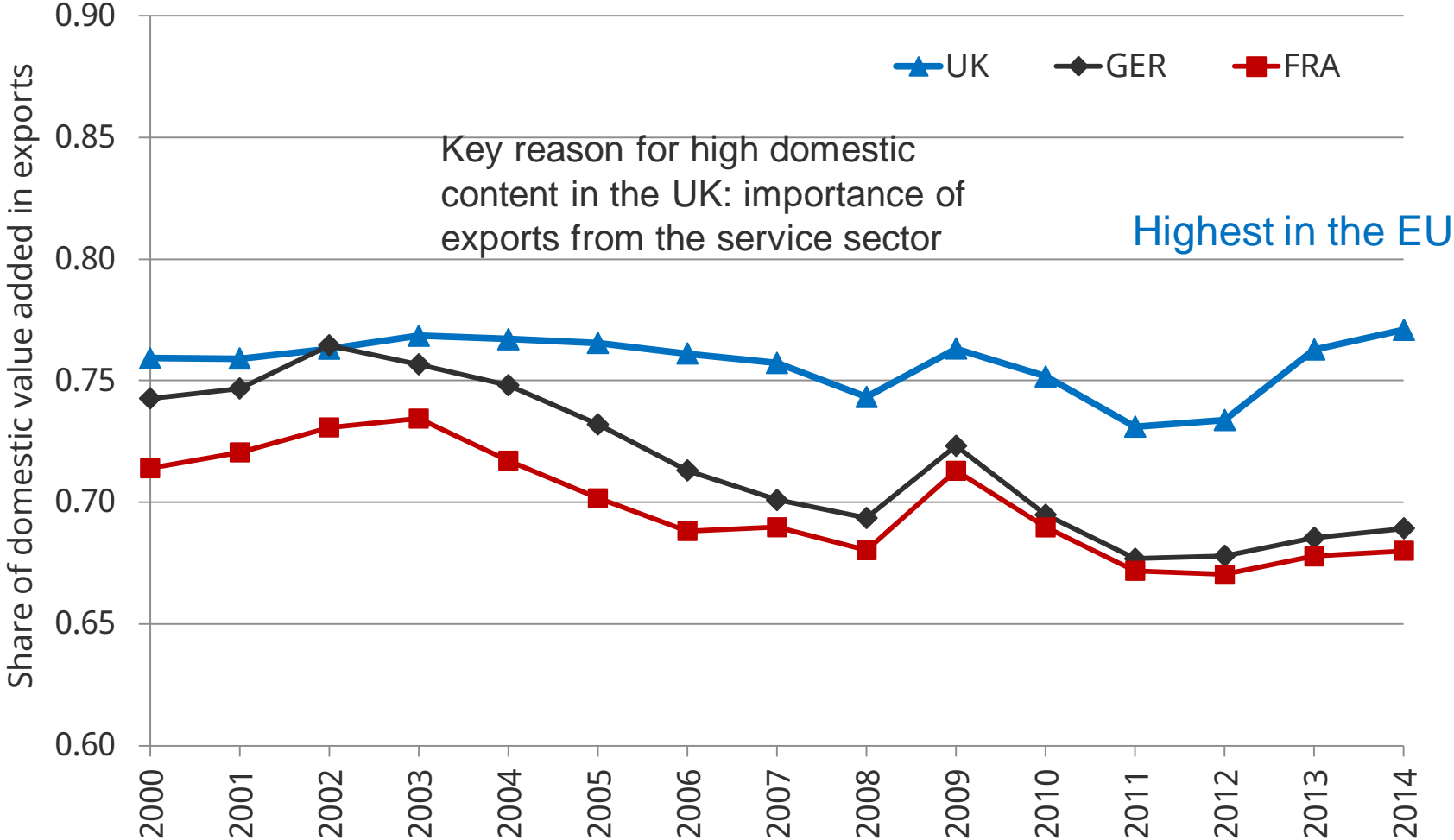
# Foreign value added in UK exports

# Domestic share of value added in three countries



Source: Figure 6 in IJtsma, Levell, Los and Timmer (2018)

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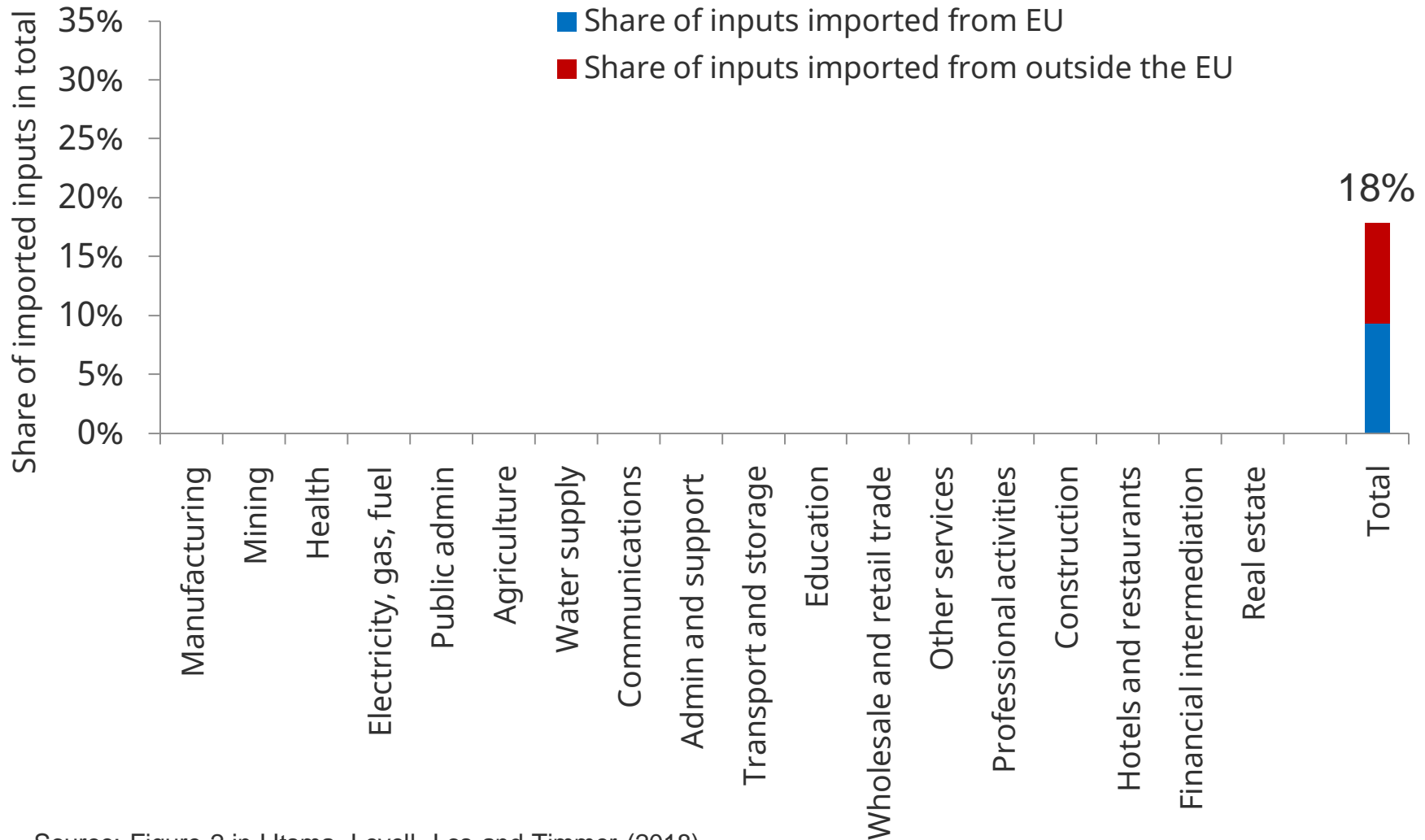
# How important are foreign inputs to UK industries?

**UK domestic value added share in exports is high relative to other countries**

**But importance of foreign inputs varies greatly across different industries**

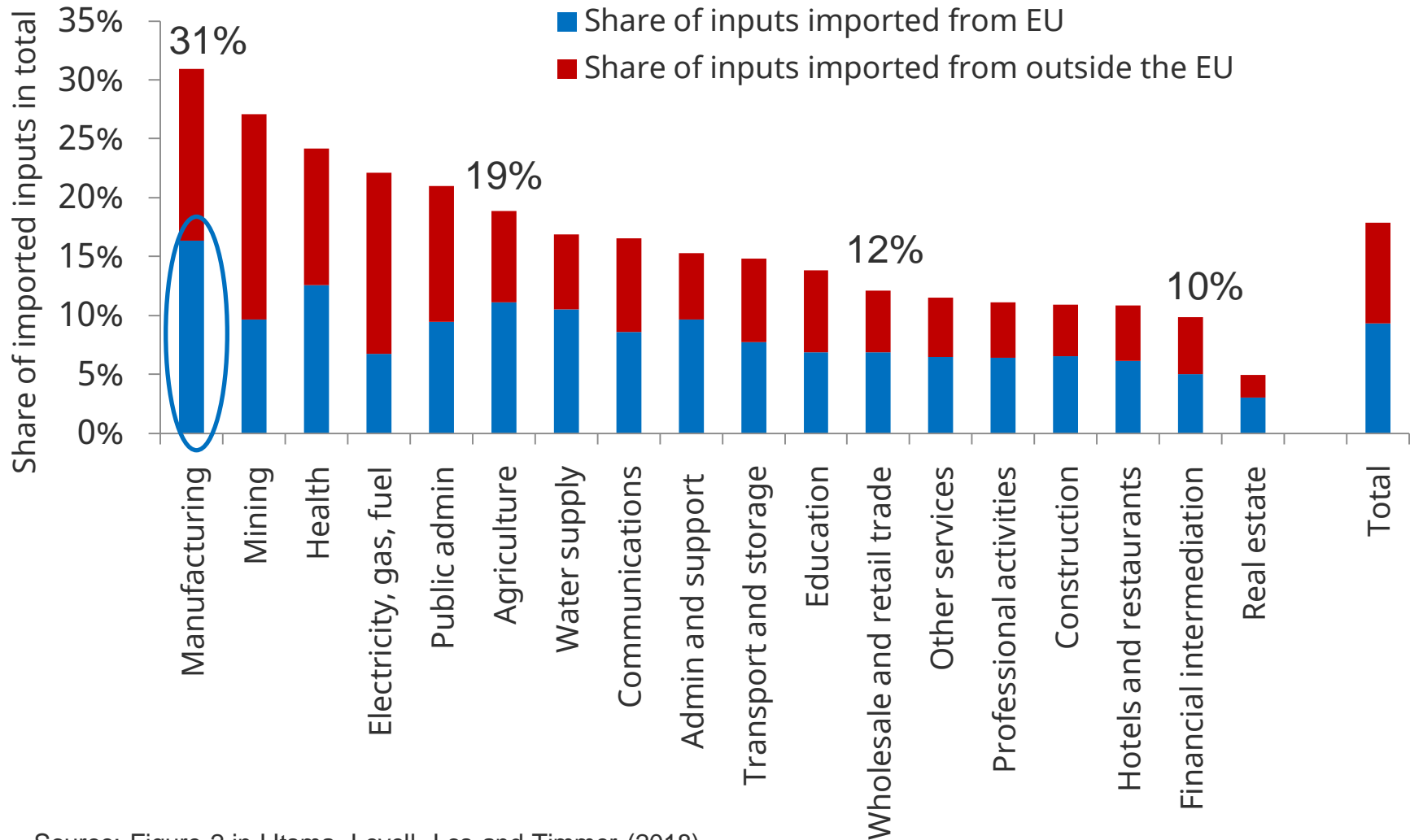
- To look at this calculate what proportion of inputs from different countries are imported

# Importance of imported inputs by industry (2014)



Source: Figure 2 in IJtsma, Levell, Los and Timmer (2018)

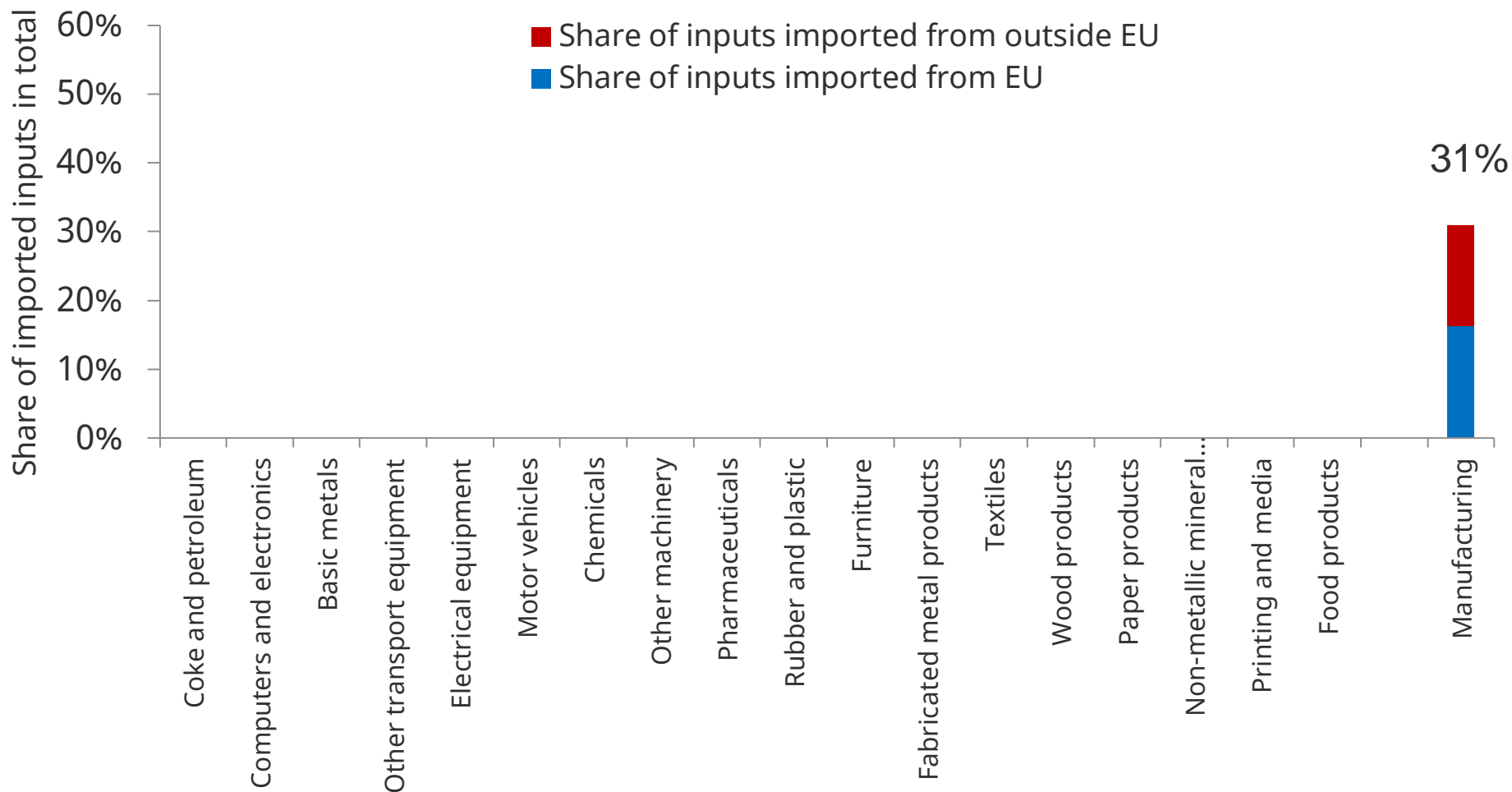
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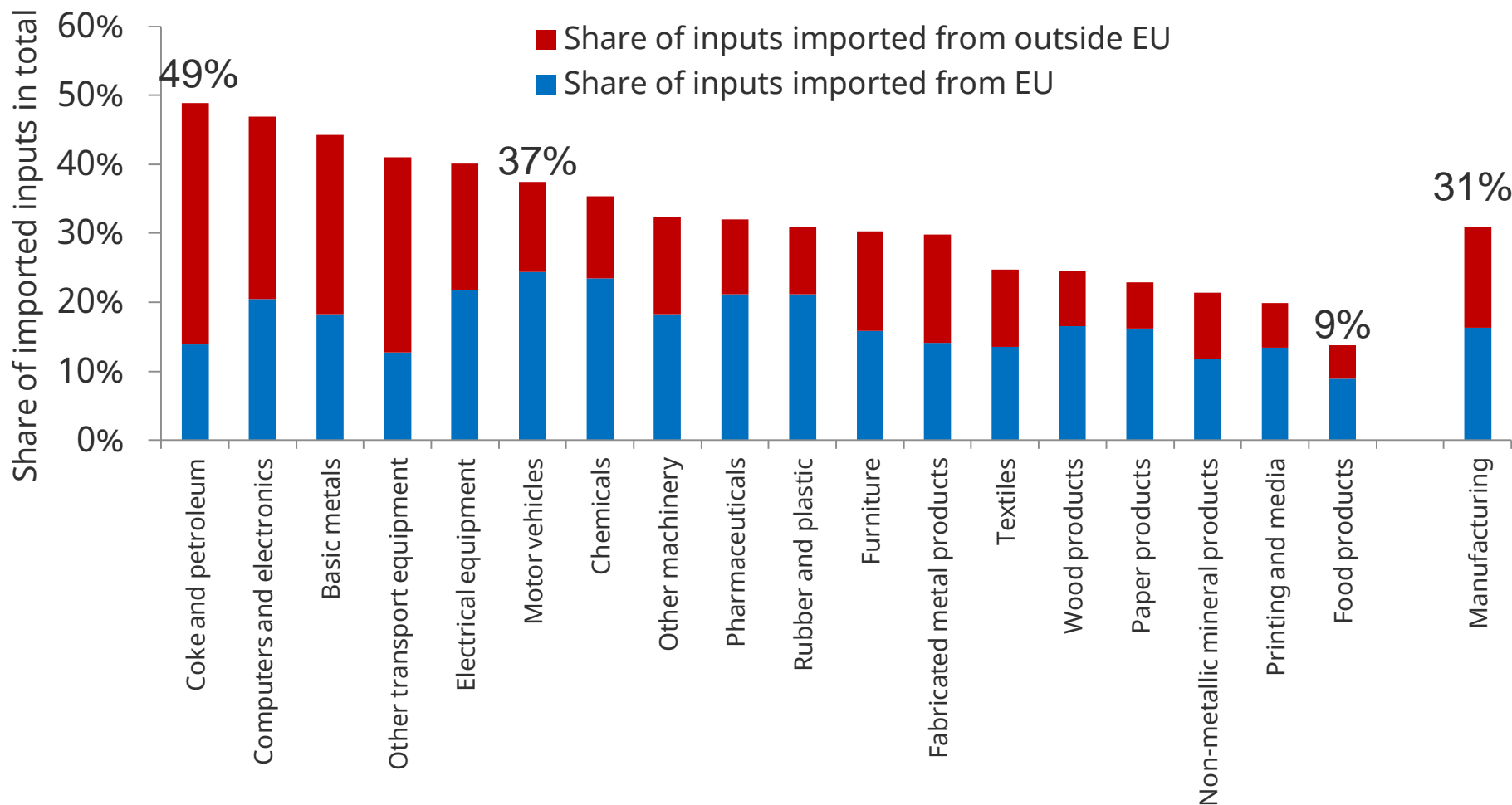


# Importance of imported inputs for manufacturing industries (2014)



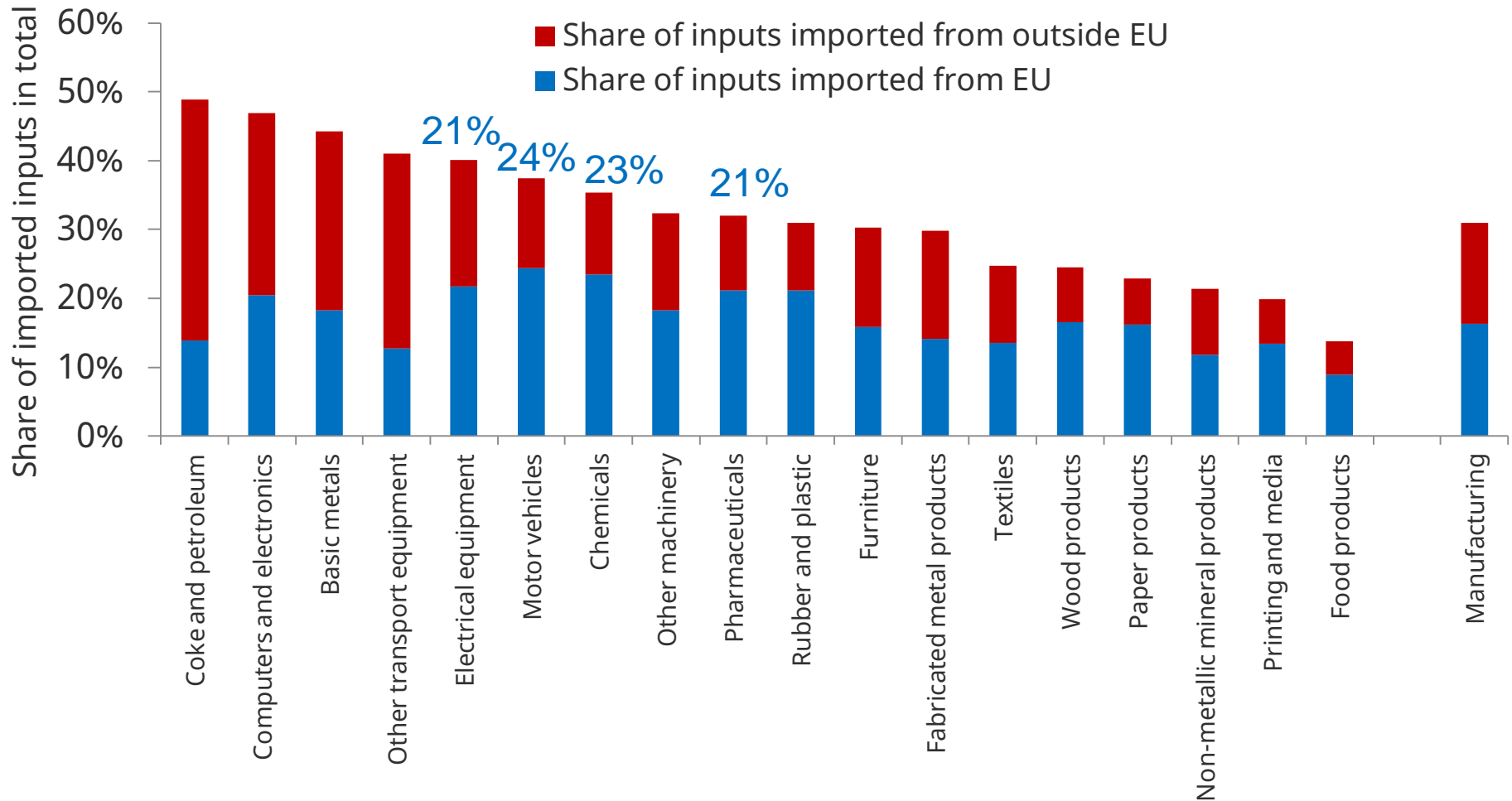
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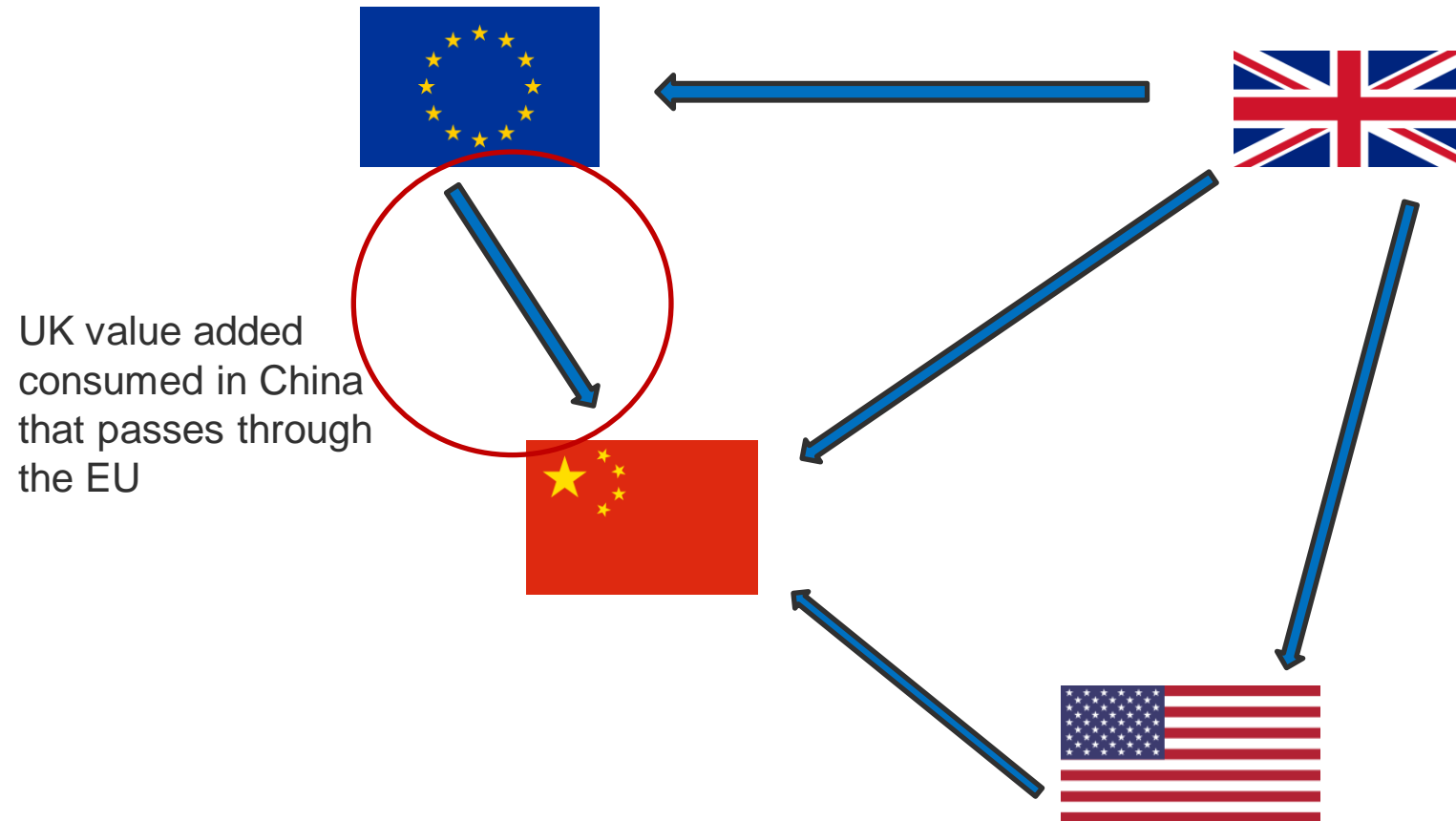


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# UK value added exports that pass through the EU

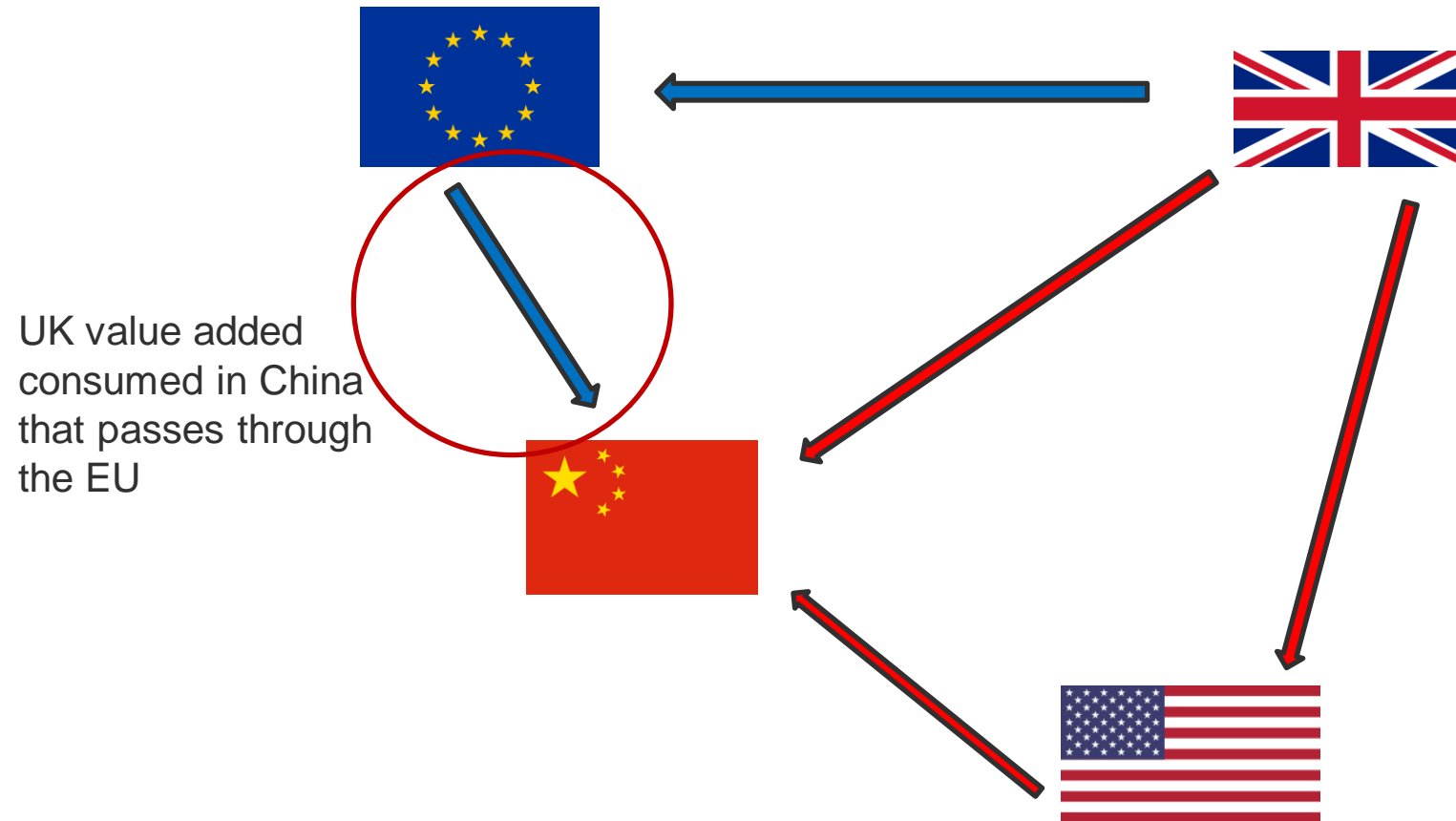
# Stylised global value chains

How large are flows that pass to e.g. China through the EU?



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# UK value added exports exported to the EU first (2014)

Destination country	UK value added consumed in other country	UK value added consumed in other countries that is exported to the EU first	Share exported to the EU first
United States			
China			
Switzerland			
...	...	...	...
<b>Total non-EU</b>	<b>£260bn</b>		

Source: IJtsma, Levell, Los and Timmer (2018)

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Destination country	UK value added consumed in other country	UK value added consumed in other countries that is exported to the EU first	Share exported to the EU first
United States	£52bn	£5bn	9%
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## How significant are these numbers?

**Based on current trading patterns, if UK value added passing through the EU on its way to non-EU countries were lost**

- Value added exports to the US would need to increase by 10%
- Value added exports to China would need to increase by 17%
- Value added exports to Switzerland would need to increase by 20%

**This is on top of any loss in value added exports to the EU itself**

# Conclusions

**Key trade off: how much integration with the EU versus how much of an independent trade policy?**

**Many factors important here**

- Relative importance of different export markets for the UK
- Can we strike new agreements quickly?
- How “deep” are they likely to be?

**Based on current trade patterns:**

- Domestic value added shares in the UK are relatively high, but (EU) imported inputs important for particular industries
- Potential loss of value added exports to non-EU countries if it becomes harder to export to the EU